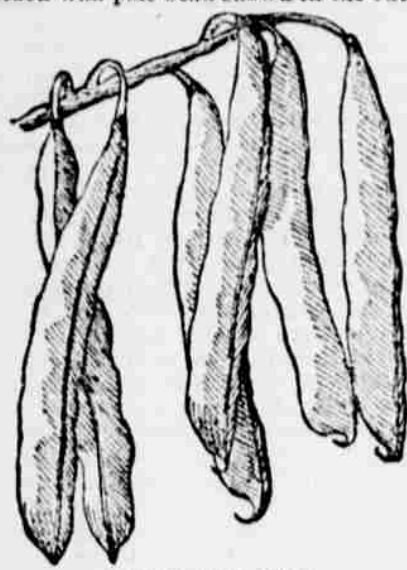


## FARM AND GARDEN.

### HOW TO MAKE A SATISFACTORY SILO AT SMALL EXPENSE.

All About Kohl Rabi—Condition of Cattle—Important Points in Field and Garden Culture—A New and Early Pot Bean—Agricultural News.

Catalogued among novelties this season in vegetables by seedmen in various sections of the country is the early cluster golden wax pole bean shown in the cut.



GOLDEN WAX BEAN.

Vick says of it: "Its points of excellence are such that we are confident its advent will be hailed with satisfaction by both market men and private gardeners. It is earlier than any other pole variety, following ten days after the Dwarf Golden Wax. The vine makes a rapid, healthy growth, bearing clusters of three to six large pods of rich golden color. The pods average about eight inches in length and are exceedingly tender and plump. As the flavor is also delicate and the pods stringless, it is not excelled as a staple. Unlike many pole beans, it is very productive, continuing to bear, if the pods are picked, until frost. The showy appearance and cooking qualities of this bean, with its great productiveness, will commend it as an excellent and profitable variety for market."

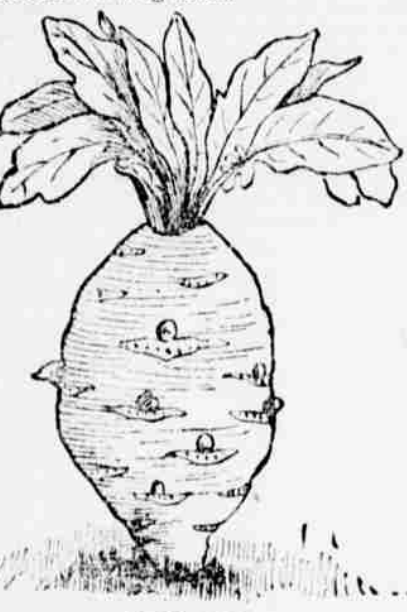
### The Cattle of the Country.

The latter part of this winter was severe on the stock in the Atlantic states as far south as the Carolinas. The average by states, however, varies but little from that of last year. According to Statistician Dodge the cattle of the New England states are in generally good condition. The states north and westward from the Ohio to the Missouri rivers show an average condition as regards flesh and freedom from disease. Shelter and food are provided as required, and losses are reduced to a minimum. Condition is high in California and Oregon, both being slightly above the average. The cattle on the ranges suffered severely from the inclemency of the winter, and the results of the season will more strongly than ever impress upon herd owners the necessity, even from a financial point of view, of providing sufficient shelter against the dreaded blizzards and of supplying themselves with forage for more winter feeding.

The losses of the past year were more severe than usual, owing in some measure to the hard winter. Deaths from exposure were a very large item in the total loss, and were heavy in some of the range sections. In Georgia and Texas starvation was a fruitful cause of death, while in the latter state the drought produced great loss. Cattle have been comparatively free from serious diseases in most sections. The dreaded pleuro pneumonia has appeared in a number of counties, mostly near large cities in the east, to which the infection is generally traced.

### Kohl Rabi, or Turnip Cabbage.

Kohl rabi, sometimes called turnip cabbage, is a vegetable intermediate between the cabbage and the turnip. In Europe it has long been prized, not only as a vegetable for the table, but as an excellent feed for stock. Of recent years our leading seedmen have included several varieties of Kohl rabi in their catalogues, and our cultivators are beginning to test its uses—more especially as a general crop to be used in feeding stock.



KOHL RABI.

It is cultivated by sowing the seeds in rows in May, June and July, according to the latitude. Sow in rows eighteen inches apart, and thin out as may be desired. When young the flesh of the vegetable is tender and resembles a fine rutabaga, with less of the turnip flavor. When fully matured it becomes too tough for the table and makes excellent food for stock.

### In the Cornfield.

Each year the cultivation of corn grows less deep and ridged. By drilling in the seed and giving shallow culture some of the largest corn yields on record have been obtained. Two common methods now in vogue are drilling and checking. Every farmer understands what drilling in the seed means. In some sections what is known as the "double row system" is practiced.

A plan of drill culture that works well on light, dry upland is termed the "furrow system." The field is prepared in the usual manner, and at planting time is laid off and thrown up into five feet beds, it being designed to plant the furrows between the beds. The main object is to insure the moisture the crop may need. The fertilizer is sown in the bottom of the furrows and mixed with the soil; the grain is then dropped and covered by a row planter or otherwise. The subsequent cultivation is done with hoes or cultivators, which will gradually level down the surface of the beds, returning the soil to the corn.

The system of checking corn, largely adopted in the northern and western

states and also common in the valley of Virginia, admits of cultivation in two directions—direct and across—and has the advantage of saving all hoe labor, in addition to giving the plants a better opportunity for sun and air.

At the east large areas of corn are usually sown in drills, and corn planters and cultivators are adopted. That culture is yearly gaining advocates and the old hill system is gradually disappearing.

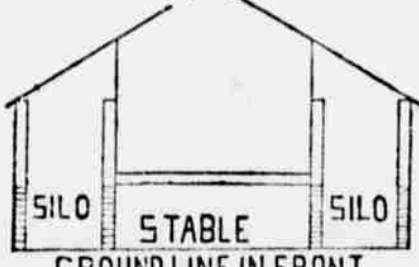
### Points in Pea Culture.

At the New York Experiment station, during tests made in pea culture, the following points were noted: Permitting the seed of peas to sprout before planting indicated an advantage in the earliness of the first pods of three to eight days. The position of the seeds in the pods did not appear to have any influence on the resultant plants. A slight promotion of earliness—three or four days—was noted as the effect of pinching the terminal shoots. Mulching the soil lightly between the rows of peas with straw retarded the attack of mildew very perceptibly. August 12 the mulched rows were free from mildew, while unmulched rows planted at the same time were entirely enveloped.

### Barn Silos.

The idea is quite prevalent that a silo must be of masonry and very substantial and expensive in order to gain paying results. Such, however, is not the case. Many silos are now being built in the interior of the big barn, using a hole or part of a bay. According to Prairie Farmer nearly five times as much forage can be put into a given space in the form of ensilage as can be stored in the same space if the same crop is dried—fifty cubic feet of ensilage weighing a ton—500 feet or more are requisite for a ton of hay.

A Minnesota correspondent in the Journal quoted from tells how he took part of one wing of his barn, which is eleven feet wide in the clear, for a silo by way of experiment. There was a stone wall on one side and one end seven feet high, with framework extending eight or nine feet above it. This he studded up with two by six-inch studding, and double boarded with building paper between. This was filled with large ensilage corn slightly frost bitten cut to one-half inch lengths. It was put in pretty fast about half way up and well tramped. After that it was filled in more slowly, indeed three or



CROSS SECTION OF BARN WITH SILO.

four days elapsing between fillings. When all was in, it was left about a week, when it was leveled and covered with building paper, with boards on top of corner and after several days four inches of earth was put on. Opened the silo and commenced feeding the middle of January. Found it in very good condition with the exception of some at the corners, where the boarding joining the wall was not perfect. The ensilage was quite sour, but the cattle ate it ravenously, preferring it to almost any other feed, and there was an increase in the flow of milk about five per cent. Some friends who were skeptical in regard to the ensilage making good butter acknowledged, after tasting it, that it was as good as from any other feed. This farmer has a farm of 110 acres and has been able to keep forty head of stock by buying some milk feed. With ensilage, he thinks he can double the number of stock. This year he contemplates fitting up both wings of his cow barn, making two silos twenty-eight by eleven feet and fifteen feet deep, which he estimates will hold about 170 tons. He will be particular to make the silos air tight.

### Conclusions About Potatoes.

After many years of practical experience Edmund Hersey, a well known Massachusetts cultivator, has arrived at the following conclusions:

1. Whole potatoes will produce a crop a week or ten days earlier than those which are divided.
2. Small, whole potatoes will produce results as good, if not better, than large ones.
3. The seed end is the better one to plant, because it starts with more vigor and produces more and larger potatoes.
4. A large piece is better, on ordinary soil, than small pieces or eyes.
5. Potatoes with sprouts long enough to break off in planting are not so good as those with eyes advanced just enough to indicate vigor.
6. The form cannot, as a rule, be changed by planting any particular form.
7. Two distinct varieties won't mix in the same hill.
8. The more we investigate the seed the less we know about it.

### To Cure a Horse of Kicking.

The simple prescription here given has the endorsement of a prominent authority in such matters: "If you have a horse that is in the habit of kicking, put him in a narrow stall that has both sides thickly padded. Suspend a sack filled with hay or straw so that it will strike his heels, and let horse and sack fight it out. Be sure to have things arranged so that the horse cannot hurt himself. The sack will be victorious every time, and in the end the horse will absolutely refuse to kick the sack or anything else."

### Agricultural Notes.

According to the national agricultural department's report the general average condition of the wheat crop for the whole country is represented by 88.

The losses of sheep from all causes during the year ending April 1 is 7 per cent of the whole number of sheep, as against an equal percentage during the corresponding period of 1885-6. Numerically the loss is smaller than in 1885-6, for, although the percentage is the same, it applies to a reduced number, the total number of sheep being now 45,000,000, as compared with 48,000,000 a year ago.

The losses of swine from all causes through the entire country have been heavy, amounting to nearly 6,000,000 during the year.

A recent estimate places the value of the dairy products of this country in 1886 at \$780,445,688.

The Texas legislature has passed a public land bill giving the farmer a chance to secure a homestead on forty years' credit at 5 per cent interest.

Recent reports made by Florida orange growers make it appear that during the season of 1886-7 about 1,000,000 boxes of oranges have been marketed at an average price of \$2 per box. The outlook now is said to be promising and a crop of 1,200,000 boxes is predicted for next year.

## Declaration of Purposes of the Patrons of Husbandry.

Adopted by the National Grange at its Seventh Annual Session held at St. Louis, Mo., February, 1874.

**PREAMBLE.**  
Profoundly impressed with the truth that the National Grange of the United States should definitely proclaim to the world its general objects, we hereby make this Declaration of Purposes of the Patrons of Husbandry:

**GENERAL OBJECTS.**  
1. United by the strong and faithful tie of Agriculture, we mutually resolve to labor for the good of our Order, our country and mankind.

2. We heartily endorse the motto, "In essentials, unity; in non essentials, liberty; in all things, charity."

**SPECIFIC OBJECTS.**  
3. We shall endeavor to advance our cause by laboring to accomplish the following objects:

To develop a better and higher manhood and womanhood among ourselves. To enhance the comforts and attractions of our homes and strengthen our attachment to our pursuits. To foster mutual understanding and co-operation. To maintain inviolate our laws, and to emulate each other in labor, to hasten the good time coming. To reduce our expenses, both individual and corporate. To buy less and produce more, in order to make our farms self sustaining. To diversify our crops and crop no more than we cultivate. To condense the weight of our exports, selling less in the bushel, and more on hoof and in fleece; less in lint and more in warpage wool. To systemize our work, and calculate intelligently on probabilities. To discountenance the credit system, the fashion system, and every other system tending to prodigality and bankruptcy.

We propose meeting together, talking to each other, working together, buying together, selling together, and, in general, acting together for our mutual protection and advancement, as occasion may require.

We shall avoid litigation as much as possible, by arbitration in the Grange. We shall constantly strive to secure entire harmony, good will, vital brotherhood among ourselves, and to make our order perpetual. We shall earnestly endeavor to suppress personal, local, sectional and national prejudices, all unhealthy rivalry, all selfish ambition. Faithful adherence to these principles will insure our mental, moral, and social, and material advancement.

### BUSINESS RELATIONS.

4. For our business interests we desire to bring producers and consumers, farmers and manufacturers, into the most direct and friendly relations possible. Hence we must dispense with a surplus of middlemen, not that we are unfriendly to them, but we do not need them. Their surplus and their exactions diminish our profits. We wage no aggressive warfare against any other interests whatever. On the contrary, all our acts, and all our efforts, so far as business is concerned, are not only for the benefit of the producer and consumer, but also for all other interests that tend to bring these two parties into speedy and economical contact. Hence we hold that transportation companies of every kind are necessary to our success, that their interests are intimately connected with our interest, and harmonious action is mutually advantageous, keeping in view the first sentence in our Declaration of Principles of Action, that "individual happiness depends upon general prosperity."

We shall therefore advocate for every State the increase in every practicable way of all facilities for transporting cheaply to the sea-board, or between home producers and consumers, all the productions of our country. We adopt it as our fixed purpose "to open out the channels in nature's great arteries, that the life blood of commerce may flow freely."

We are not enemies of railroads, navigable and irragating canals, or of any corporation that will advance our industrial interests, nor of any laboring classes.

In our noble Order there is no communism, no agrarianism.

We are opposed to such spirit and management of any corporation or enterprise as tends to oppress the people, and rob them of their just profits. We are not enemies to capital, but we oppose the tyranny of monopolies. We long to see the antagonism between capital and labor removed by common consent, and by an enlightened statesmanship worthy of the nineteenth century. We are opposed to excessive high salaries, rates of interest, and exorbitant per cent profits in trade. They greatly increase burdens, and do not bear a proper proportion to the profits of producers. We desire only self-protection, and the protection of every true interest of our land by legitimate transactions, legitimate trade, and legitimate profits.

**EDUCATION.**  
We shall advocate the cause of education among ourselves and for our children, by all just means within our power. We especially advocate for our agricultural and industrial colleges, that practical agriculture, domestic science, and all the arts which adorn the home, be taught in their courses of study.

### THE GRANGE NOT PARTISAN.

5. We emphatically and sincerely assert the oft repeated truth taught in our organic laws that the Grange—National, State or Subordinate—is not a political or party organization. No Grange, if true to its obligations, can discuss political or religious questions, or call political conventions, nor nominate candidates, nor even discuss their merits in its meetings. Yet the principles we teach underlie all true politics, all true statesmanship, and if properly carried out, will tend to purify the whole political atmosphere of our country, for we seek the greatest good to all. [By resolution of the National Grange, Boston, Mass., 1885, "the greatest number" erased and the word "ALL" substituted.] We always bear in mind that no one by becoming a Patron of Husbandry gives up that inalienable right and duty which belongs to every American citizen, to take a proper interest in the politics of his country.

On the contrary, it is right for every member to do all in his power legitimately to influence for good the action of any political party to which he belongs. It is his duty to do all he can in his own party to put down bribery, corruption and trickery; to see that none but competent, faithful and honest men, who will unflinchingly stand by our industrial interests, are nominated for all positions of trust; and to have carried out the principle which should characterize every Patron, that the office should seek the man, and not the man the office.

We acknowledge the broad principle that difference of opinion is no crime, and hold that "progress toward truth is made by difference of opinion," while the fault lies in bitterness of controversy.

We desire a proper equality, equity and fairness; protection for the weak, restraint upon the strong; in short, justly distributed burdens, and justly distributed power. These are American ideas, the very essence of American independence, and to advocate the contrary is unworthy of the sons and daughters of an American Republic.

We cherish the belief that sectionalism, and of right should be dead and buried with the past. Our work is for the present and the future. In our agricultural brotherhood and its purposes, we shall recognize no North, no South, no East, no West. It is reserved by every Patron, as the right of a freeman, to affiliate with any party that will best carry out his principles.

### OUTSIDE CO-OPERATION.

6. Ours being peculiarly a farmers' institution, we cannot admit all to our ranks. Many are excluded by the nature of the organization, not because they are professional men, or artisans, or laborers, but because they have not a sufficient direct interest in tilling the soil, or may have some interest in conflict with our purposes. But we appeal to all good citizens for their cordial co-operation to assist in our efforts toward reform, that we may eventually remove from our midst the last vestige of tyranny and corruption.

We hail the general desire for fraternal harmony, equitable compromises and earnest co-operation, as an omen of our future success.

### CONCLUSION.

7. It shall be an abiding principle with us to relieve any of our oppressed and suffering brotherhood by any means at our command.

Last, but not least, we proclaim it among our purposes to inculcate a proper appreciation of the abilities and sphere of woman, as is indicated by admitting her to membership and position in our Order.

Implying the continued assistance of our Divine Master to guide us in our work, we here pledge ourselves to faithful and harmonious labor for all future time, to return by our united efforts to the wisdom, justice, fraternity and political purity of our forefathers.

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